

## WEST Search History

DATE: Saturday, October 28, 2006

Hide?	Set Name	Query	Hit Count
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L7	express\$3 same L2	1
<input type="checkbox"/>	L6	express\$5 same L2	1
<input type="checkbox"/>	L3	T7 same L2	12
<input type="checkbox"/>	L2	(RNA adj polymerase) same L1	43
<input type="checkbox"/>	L1	(polynucleotide adj phosphorylase)	289

END OF SEARCH HISTORY

=> index bioscience medicine

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 17:31:51 ON 28 OCT 2006

71 FILES IN THE FILE LIST IN STNINDEX

=> S ((polynucleotide (w)Phosphorylase)or PNPase)

22 FILE AGRICOLA  
5 FILE ANABSTR  
3 FILE AQUASCI  
31 FILE BIOENG  
518 FILE BIOSIS  
66 FILE BIOTECHABS  
66 FILE BIOTECHDS  
170 FILE BIOTECHNO  
28 FILE CABA  
1276 FILE CAPLUS  
9 FILE CEABA-VTB.  
11 FILE CONFSCI  
66 FILE DDFB  
16 FILE DDFU  
159 FILE DGENE  
49 FILE DISSABS  
66 FILE DRUGB  
21 FILE DRUGU  
5 FILE EMBAL  
362 FILE EMBASE  
186 FILE ESBIODBASE

30 FILES SEARCHED...

2 FILE FROSTI  
7 FILE FSTA  
214 FILE GENBANK  
28 FILE IFIPAT  
17 FILE JICST-EPLUS  
253 FILE LIFESCI  
637 FILE MEDLINE  
5 FILE NTIS  
164 FILE PASCAL  
15 FILE PHAR  
492 FILE SCISEARCH  
143 FILE TOXCENTER  
209 FILE USPATFULL  
13 FILE USPAT2  
1 FILE VETU  
60 FILE WPIDS  
60 FILE WPINDEX

68 FILES SEARCHED...

1 FILE NLDB

39 FILES HAVE ONE OR MORE ANSWERS, 71 FILES SEARCHED IN STNINDEX

L1 QUE ((POLYNUCLEOTIDE (W) PHOSPHORYLASE) OR PNPASE)

=> d rank

F1 1276 CAPLUS  
F2 637 MEDLINE  
F3 518 BIOSIS  
F4 492 SCISEARCH  
F5 362 EMBASE  
F6 253 LIFESCI  
F7 214 GENBANK  
F8 209 USPATFULL  
F9 186 ESBIODBASE  
F10 170 BIOTECHNO

F11	164	PASCAL
F12	159	DGENE
F13	143	TOXCENTER
F14	66	BIOTECHABS
F15	66	BIOTECHDS
F16	66	DDFB
F17	66	DRUGB
F18	60	WPIDS
F19	60	WPINDEX
F20	49	DISSABS
F21	31	BIOENG
F22	28	CABA
F23	28	IFIPAT
F24	22	AGRICOLA
F25	21	DRUGU
F26	17	JICST-EPLUS
F27	16	DDFU
F28	15	PHAR
F29	13	USPAT2
F30	11	CONFSCI
F31	9	CEABA-VTB
F32	7	FSTA
F33	5	ANABSTR
F34	5	EMBAL
F35	5	NTIS
F36	3	AQUASCI
F37	2	FROSTI
F38	1	VETU
F39	1	NLDB

=> file f1-f6, f8-f11, f13

FILE 'CAPLUS' ENTERED AT 17:34:20 ON 28 OCT 2006  
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=> S L1

L2 4410 L1

=> S express? (s) L2

L3 350 EXPRESS? (S) L2

=> S purif? (s) L3

L4 19 PURIF? (S) L3

=> S (tag or his or GST or T7CBD or Trx or flag) (s) L4

L5 6 (TAG OR HIS OR GST OR T7CBD OR TRX OR FLAG) (S) L4

=> S (tag or his or GST or T7CBD or Trx or flag) (s) L3

L6 8 (TAG OR HIS OR GST OR T7CBD OR TRX OR FLAG) (S) L3

=> S (tag or his or GST or T7or CBD or Trx or flag) (s) L3

L7 8 (TAG OR HIS OR GST OR T7OR CBD OR TRX OR FLAG) (S) L3

=> s polymerase (s) L4

L8 3 POLYMERASE (S) L4

=> s polymerase (s) L7

L9 3 POLYMERASE (S) L7

=> dup rem l7

PROCESSING COMPLETED FOR L7

L10 5 DUP REM L7 (3 DUPLICATES REMOVED)

=> d ibib abs l10 1-5

L10 ANSWER 1 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2006:195560 USPATFULL <<LOGINID::20061028>>

TITLE: Process for producing pnpase

INVENTOR(S): Murai, Masatoshi, Hyogo, JAPAN

NUMBER KIND DATE

PATENT INFORMATION: US 2006166315 A1 20060727

APPLICATION INFO.: US 2003-540145 A1 20031225 (10)

WO 2003-JP16653 20031225

20050621 PCT 371 date

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GREENBERG TRAURIG, LLP, MET LIFE BUILDING, 200 PARK AVENUE, NEW YORK, NY, 10166, US

NUMBER OF CLAIMS: 19

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 695

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides a process for producing \*\*\*PNPase\*\*\*, wherein

\*\*\*PNPase\*\*\* can be produced easily with high efficiency, and problematic contamination with endotoxin in synthesis of a nucleic acid polymer as a raw material of pharmaceutical preparations can be reduced.

\*\*\*PNPase\*\*\* is produced by Escherichia coil or the like having a T7 RNA polymerase gene, transformed with an \*\*\*expression\*\*\* vector having a \*\*\*PNPase\*\*\* gene and a T7 promoter ligated therein. For further facilitating the step of purifying \*\*\*PNPase\*\*\*, an \*\*\*expression\*\*\* vector having a \*\*\*tag\*\*\* gene is utilized and the culture time is prolonged.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:570017 CAPLUS <<LOGINID::20061028>>

DOCUMENT NUMBER: 141:102243

TITLE: Bacterial expression of PNPase and use in polynucleotide synthesis

INVENTOR(S): Murai, Masatoshi

PATENT ASSIGNEE(S): Nippon Shinyaku Co., Ltd., Japan

SOURCE: PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058959	A1	20040715	WO 2003-JP16653	20031225
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003292772	A1	20040722	AU 2003-292772	20031225
EP 1582584	A1	20051005	EP 2003-768192	20031225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006166315	A1	20060727	US 2005-540145	20050621
PRIORITY APPLN. INFO.: JP 2002-376780 A 20021226				
WO 2003-JP16653 W 20031225				

AB The invention provides a process for highly efficiently and conveniently producing polynucleotide phosphorylase (PNPase) while reducing contamination with endotoxins causing problems in synthesizing a nucleic acid polymer, useful as drug synthesis starting material. PNPase is produced using Escherichia coli, etc. having a T7 RNA polymerase gene which has been transformed with an expression vector carrying a PNPase gene and a T7 promoter ligated together. Moreover, the step of purifying \*\*\*PNPase\*\*\* is simplified by using an \*\*\*expression\*\*\* vector having a \*\*\*tag\*\*\* gene or prolonging the culture time. \*\*\*Expression\*\*\* of Escherichia coli \*\*\*PNPase\*\*\* with \*\*\*His\*\*\* \*\*\*tag\*\*\* with reduced endotoxin contamination is described. Synthesis of polyinosinic acid (av. yield 50%, chain length 2200 bp) using the recombinant PNPase from inosine diphosphate trisodium salt and polycytidylic acid (av. yield 65%, chain length 2200 bp) from cytidine diphosphate trisodium salt was accomplished.

L10 ANSWER 3 OF 5 USPATFULL on STN  
ACCESSION NUMBER: 2004:217827 USPATFULL <<LOGINID::20061028>>  
TITLE: Cathepsin V-like polypeptides  
INVENTOR(S): Tang, Y. Tom, San Jose, CA, United States  
Goodrich, Ryle W., Los Angeles, CA, United States  
Asundi, Vinod, Foster City, CA, United States  
Drmanac, Radoje T., Palo Alto, CA, United States  
PATENT ASSIGNEE(S): Nuvelo, Inc., Sunnyvale, CA, United States (U.S. corporation)

NUMBER	KIND	DATE
PATENT INFORMATION: US 6783969 B1 20040831		
APPLICATION INFO.: US 2001-799451 20010305 (9)		
DOCUMENT TYPE: Utility		
FILE SEGMENT: GRANTED		
PRIMARY EXAMINER: Myers, Carla J.		
NUMBER OF CLAIMS: 3		
EXEMPLARY CLAIM: 1		
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT: 7745		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 4 OF 5 PASCAL COPYRIGHT 2006 INIST-CNRS. ALL RIGHTS RESERVED. on  
STN

ACCESSION NUMBER: 1999-0215139 PASCAL <<LOGINID::20061028>>

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TITLE (IN ENGLISH): ISOLATION AND CHARACTERIZATION OF THE GENE CODING FOR  
A PUTATIF POLYNUCLEOTIDE PHOSPHORYLASE THAT CONTAINS A  
BINDING DOMAIN FOR TBP (TATA-BINDING PROTEIN)

TITLE (IN FRENCH): ISOLEMENT ET CARACTERISATION D'UN GENE D'ARABIDOPSIS  
CODANT POUR UNE POLYNUCLEOTIDE PHOSPHORYLASE PUTATIVE  
INTERAGISSANT AVEC TBP (TATA-BINDING PROTEIN)

AUTHOR: KIM Yeon-Jung; MACHE Regis (dir.)

CORPORATE SOURCE: Universite de Grenoble 1, Saint-Martin-d'Heres, France  
(tutelle)

SOURCE: (1998-10), 150 refs.

136 p.

Dissertation Information: Universite de Grenoble 1.

Saint-Martin-d'Heres. FRA, Th. doct., 98GRE10171

DOCUMENT TYPE: Dissertation

BIBLIOGRAPHIC LEVEL: Monographic

COUNTRY: France

LANGUAGE: French

SUMMARY LANGUAGE: French; English

AVAILABILITY: INIST-T 123317, T98GRE10171 0000; RBCCN-384212103,  
T98GRE10171 0000

AN 1999-0215139 PASCAL <<LOGINID::20061028>>

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ABFR L'ARN polymerase II, l'enzyme core responsable de la synthese des ARNm

chez les eucaryotes, exige des facteurs supplementaires pour l'initiation  
de la transcription (facteurs generaux de transcription : TFIIA, TFIID,  
TFIIF, TFIIE, TFIIH et TFIIF). L'assemblage du complexe d'initiation de  
la transcription au niveau des elements promoteurs debute par le  
recrutement du facteur TFIID, qui est un facteur d'initiation essentiel  
constitue de la proteine de liaison a la boite TATA (TBP) et de plusieurs  
facteurs associees a TBP. Ces derniers sont appeles TAFs et certains  
semblent agir egalement comme coactivateurs qui modulent la regulation  
transcriptionnelle en interagissant avec divers activateurs ou  
represseurs transcriptionnels. Le but de ce travail consistait a  
rechercher des proteines qui interagiraient avec la proteine TBP2  
d'Arabidopsis. Les connaissances actuelles concernant la composition du  
complexe d'initiation de la transcription par l'ARN polymerase II etaient  
limitees aux systemes humains, de Drosophiles ou de levures. Peu  
d'information etait disponible concernant le systeme vegetal a  
l'exception de certaines proteines TBP isolees chez quelques especes.  
Nous avons utilise le systeme double hybride de la levure pour cribler  
une banque d'ADNc d'A. thaliana et un clone positif a ete finalement  
isole. L'ADNc ainsi isole a ete introduit dans un vecteur d'

\*\*\*expression\*\*\* d'E. coli pour une surproduction de la proteine sous

forme de fusion a la \*\*\*GST\*\*\*. L'analyse de l'interaction

proteine-proteine in vitro en utilisant la proteine (TIP : TBP

Interacting Polypeptide) surexprimee et la proteine cible TBP fusionnee a

un enchainement d'histidine a confirme l'interaction directe entre TIP et

TBP. Une experience de gel retard a prouve que TIP empeche TBP2 de se

lier a la boite TATA in vitro. Afin de trouver le gene et l'ADNc complet,

une banque genomique et une deuxieme banque d'ADNc ont ete criblees avec

le fragment d'ADNc precedemment isole comme sonde. Un fragment d'ADN

d'approximativement 7 kb contenant le gene entier, et un ADNc, codant une

proteine d'environ 110 kDa, ont ete obtenus et sequences. La comparaison

de sequence utilisant le logiciel BLAST a revele une forte homologie avec

la \*\*\*PNPase\*\*\* d'E. coli ( \*\*\*polynucleotide\*\*\*

\*\*\*phosphorylase\*\*\* ) au niveau du domaine N-terminal de la proteine.

Mais le domaine C-terminal contenant l'activite de liaison a TBP ne

montre aucune similitude particuliere avec d'autres proteines. Nous avons

montre, par co-immunoprecipitation, que cette proteine complete interagit

avec TBP in vitro. En outre, le resultat d'une analyse de RNase

protection indique que le gene est transcrit constitutivement en un ARNm

presentant un intron non episse (retention d'intron). Cet ARNm

incompletement episse semble coder pour la proteine tronquee, ce qui est

du a la presence de codons stop dans l'intron. L'epissage de cet intron

semble etre regule de facon tissu-specifique et par des stress

environnementaux : c'est a dire que l'ARNm completement epissee est trouve  
seulement dans les graines et les siliques et dans les plantes traitees  
au froid. Base sur l'ensemble des resultats, l'implication de la proteine  
ainsi identifiee dans la regulation de l' \*\*\*expression\*\*\* des genes  
est discutee.

L10 ANSWER 5 OF 5 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 2

ACCESSION NUMBER: 96:73885 LIFESCI <<LOGINID::20061028>>

TITLE: Proteins associated with RNase E in a multicomponent  
ribonucleolytic complex

AUTHOR: Miczak, A.; Kaberdin, V.R.; Wei, Chia-Li; Lin-Chao, Sue\*

CORPORATE SOURCE: Inst. Mol. Biol., Academia Sinica, Nankang Taipei, Taiwan  
11529

SOURCE: PROC. NATL. ACAD. SCI. USA, (1996) vol. 93, no. 9, pp.  
3865-3869.

ISSN: 0027-8424.

DOCUMENT TYPE: Journal

FILE SEGMENT: N; J

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The Escherichia coli endoribonuclease RNase E is essential for RNA  
processing and degradation. Earlier work provided evidence that RNase E  
exists intracellularly as part of a multicomponent complex and that one of  
the components of this complex is a 3'-to-5' exoribonuclease,  
\*\*\*polynucleotide\*\*\* \*\*\*phosphorylase\*\*\* (EC 2.7.7.8). To isolate  
and identify other components of the RNase E complex, \*\*\*FLAG\*\*\*  
-epitope-tagged RNase E ( \*\*\*FLAG\*\*\* -Rne) fusion protein was purified  
on a monoclonal antibody-conjugated agarose column. The \*\*\*FLAG\*\*\* -Rne  
fusion protein, eluted by competition with the synthetic \*\*\*FLAG\*\*\*  
peptide, was found to be associated with other proteins. N-terminal  
sequencing of these proteins revealed the presence in the RNase E complex  
not only of \*\*\*polynucleotide\*\*\* \*\*\*phosphorylase\*\*\* but also of  
DnaK, RNA helicase, and enolase (EC 4.2.1.11). Another protein associated  
only with epitope-tagged temperature-sensitive (Rne-3071) mutant RNase E  
but not with the wild-type enzyme is GroEL. The \*\*\*FLAG\*\*\* -Rne complex  
has RNase E activity in vivo and in vitro. The relative amount of proteins  
associated with wild-type and Rne-3071 \*\*\*expressed\*\*\* at an elevated  
temperature differed.

=> d his

L1 QUE ((POLYNUCLEOTIDE (W) PHOSPHORYLASE) OR PNPASE)

FILE 'CAPLUS, MEDLINE, BIOSIS, SCISEARCH, EMBASE, LIFESCI, USPATFULL,  
ESBIOBASE, BIOTECHNO, PASCAL, TOXCENTER' ENTERED AT 17:34:20 ON 28 OCT  
2006

L2 4410 S L1

L3 350 S EXPRESS? (S) L2

L4 19 S PURIF? (S) L3

L5 6 S (TAG OR HIS OR GST OR T7CBD OR TRX OR FLAG) (S) L4

L6 8 S (TAG OR HIS OR GST OR T7CBD OR TRX OR FLAG) (S) L3

L7 8 S (TAG OR HIS OR GST OR T7OR CBD OR TRX OR FLAG) (S) L3

L8 3 S POLYMERASE (S) L4

L9 3 S POLYMERASE (S) L7

L10 5 DUP REM L7 (3 DUPLICATES REMOVED)

=> log y

# NiceZyme View of ENZYME: EC 2.7.7.8

## Official Name

**Polyribonucleotide nucleotidyltransferase.**

## Alternative Name(s)

**Polynucleotide phosphorylase.**

## Reaction catalysed

RNA(n+1) + phosphate <=> RNA(n) + a nucleoside diphosphate

## Comment(s)

ADP, IDP, GDP, UDP and CDP can act as donors.

## Cross-references

### Biochemical

Pathways; map number(s)      H1 ; H2 ; J7 ; K7 ; J8 ; K8

BRENDA                      2.7.7.8

PUMA2                      2.7.7.8

PRIAM enzyme-specific profiles      2.7.7.8

KEGG Ligand Database for Enzyme Nomenclature      2.7.7.8

IUBMB Enzyme Nomenclature      2.7.7.8

IntEnz                      2.7.7.8

MEDLINE                      Find literature relating to 2.7.7.8

MetaCyc                      2.7.7.8

UniProtKB/Swiss-Prot	Q8TCS8, PNPT1_HUMAN;	Q8K1R3, PNPT1_MOUSE;	Q5RCW2, PNPT1_PONPY;
	P50849, PNP_BACSU;	P57454, PNP_BUCAI;	Q8K9H5, PNP_BUCAP;
	Q89AF8, PNP_BUCBP;	P05055, PNP_ECOLI;	P44584, PNP_HAEIN;
	P41121, PNP_PHOLU;	O87792, PNP_PSEPU;	Q9ZD43, PNP_RICPR;
	O34275, PNP_YEREN;		

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All UniProtKB/Swiss-Prot entries referenced in this entry, with possibility to download in





## ENZYME: 2.7.7.8

[Help](#)

**Entry** EC  
2.7.7.8 Enzyme

**Name** polyribonucleotide nucleotidyltransferase;  
polynucleotide phosphorylase;  
PNPase;  
nucleoside diphosphate:polynucleotidyl transferase;  
polyribonucleotide phosphorylase

**Class** Transferases  
Transferring phosphorus-containing groups  
Nucleotidyltransferases

**Sysname** polyribonucleotide:phosphate nucleotidyltransferase

**Reaction (IUBMB)** RNA(n+1) + phosphate = RNA(n) + a nucleoside diphosphate  
[RN:R07282]

**Reaction (KEGG)** R07282 > R00437 R00438 R00439 R00440  
[Show all](#)

**Substrate** RNAn+1 [CPD:C00046];  
phosphate [CPD:C00009]

**Product** RNAn [CPD:C00046];  
nucleoside diphosphate [CPD:C00454]

**Comment** ADP, IDP, GDP, UDP and CDP can act as donors.

**Pathway** PATH: map00230 Purine metabolism  
PATH: map00240 Pyrimidine metabolism

**Ortholog** KO: K00962 polyribonucleotide nucleotidyltransferase

**Genes** HSA: 87178(PNPT1)  
PTR: 459247  
MMU: 71701(Pnpt1)  
RNO: 360992(Pnpt1)  
CFA: 481376(LOC481376)  
GGA: 421206(PNPT1)  
DME: Dmel\_CG11337  
CEL: BE0003N10.1  
ATH: At5g14580(T15N1.70)  
CME: CMH146C CMQ324C  
CAL: orf19.1578(RRP5)  
ECO: b3164(pnp)  
ECE: Z4525(pnp)  
ECS: ECs4045  
ECC: c3920(pnp)  
ECI: UTI89\_C3594(pnp)  
ECP: ECP\_3252  
STY: STY3463(pnp)  
STT: t3200(pnp)  
SPT: SPA3149(pnp)  
SEC: SC3223(pnp)  
STM: STM3282(pnp)  
YPE: YPO3490(pnp)